

An Investigation of Decision Making Styles and the Five-Factor Personality Traits With Respect To Attachment Styles

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Abstract

The aim of this research is to investigate if the attachment styles significantly predict the decision self-esteem, decision making styles and five-factor personality traits. Subjects of the study were 567 students in total from different faculties of Selçuk University. The results of the study showed that the attachment styles of the students significantly predict decision self-esteem, decision making styles and personality traits. It was seen that secure attachment style is the most significant predictor of decision self-esteem and vigilance, buck-passing, procrastination scores of decision making styles, whereas the most significant predictor of hypervigilance decision making style is fearful attachment style. Secure attachment style is the most significant predictor of neuroticism, extraversion, agreeableness, openness to experience sub-dimensions of personality traits and the most significant predictor of conscientiousness is preoccupied attachment style.

Key Words

Attachment Styles, Decision Making Styles, Five Factor Personality Traits.

A person's identity is shaped by the relationships with the environment starting from the early years of one's life (Hamarta, 2004). However the relationship between the child and his/her mother or caregiver(s) at the beginning of the childhood was only for the physical existence of the child, afterwards this relationship style is internalized and becomes a relationship style that affects all aspects of life. The bond established between the infant and mother helps the mother to be sensitive to the infant's signals of distress or fear and provides "a secure base" which offers infant comfort, protection and help to explore the environment (Cooper, Shaver, & Collins, 1998). Bowlby (1973, 1982) was the first researcher to suggest a bond between mother and child and he formulated a model that exhibits the functions of this bond. According to Bowlby "*attachment is an affectional bond and a strong desire of establishing a relationship or seeking*

for closer proximity with a specific figure when she/he is sick, tired or frightened". This bond comprises comfort, safety and support. In addition, attachment has been defined as an intimate and affectionate relationship between two people (Ainsworth, Blehar, Waters, & Wall, 1978).

According to attachment theory, people develop internal working models which are related to their relationships with other individuals during infancy, childhood, and adulthood. According to Bowlby (1973) an individual's initial attachment is established early in the development with his/her primary caregiver(s), and this provides a cognitive framework for his/her later social relationships. Internal working models are composed of two patterns that are associated with each other. Self model is the representation of perception about the degree to which a person internalized a sense of his or her self-worth and the self lovability whereas the others model reflects the degree to which others are expected to be available and supportive when needed (Bowlby, 1973; Bartholomew & Horowitz, 1991; VanIjzendoorn & Bakermans-Kranenburg, 1996).

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Recent studies (Bartholomew, 1990; Bartholomew & Horowitz, 1991) on attachment focused on a four-category classification model. Four attachment patterns are constructed in terms of positivity or negativity of a person's self and others in relationships. Individuals who are characterized as *secure* have a positive self model and a positive model of others. These individuals indicate a sense of lovability and an expectation that other people are generally supportive and accepting. Individuals who are characterized as *preoccupied* have a negative self model and a positive model of others. These individuals indicate a sense of unworthiness (unlovability) about the self and a sense of worthiness (lovability) about others. Individuals who are classified as *dismissing* have a positive self model, but a negative model of others and give excessive importance to independence. *Fearful* style is another attachment style, in which there are negative feelings about the self and others. Individuals who have fearful attachment style indicate a sense of unworthiness (unlovability) and perceive others as untrustworthy and rejecting (Bartholomew & Shaver, 1998). Bartholomew's attachment styles are similar to those described by other adult attachment researchers, although the terms used are different (Griffin & Bartholomew, 1994; Hazan & Shaver, 1987; Simpson, 1990). In Hazan and Shaver's (1987) model preoccupied attachment style matches "anxious-ambivalent", and the dismissing style matches "avoidant" (Hazan, & Shaver, 1987; Simpson, 1990). Kobak and Sceery (1988) state that "internal working models of attachment can be defined as the entire rules that orient an individual's emotional reactions to stressful situations." Internal working models are entire characteristics strategies in which emotions are regulated and behaviors are oriented. From this point of view, attachment style can be considered as one of the most important factors that shape individual's thoughts, feelings and behavior when making decisions regarding their life.

It is very important for an individual to have effective decision-making skills and self-confidence in decision-making in order to overcome his/her problems. The discontent from the decision that individual made can cause several adverse psychological consequences. Decision making is defined as the entire sophisticated stages in which individuals determine alternative actions, evaluate them and choose one of these alternatives to apply. In the definition of decision making, it is thought that these stages are influenced by the strategies used for obtaining information. Decision making style

is called a situation which includes the approach, reaction and action of the individual who is about to make a decision (Phillips, Pazienza, & Ferrin, 1984).

According to Kuzgun (1992), decision-making can be defined as an inclination to overcome the current problem when more than one way exists to lead us to an object that is thought to be the satisfier of a requirement. Decisions that have several alternatives reveal more difficulties for individuals and this situation causes stress. At the same time this decision chaos affects individuals negatively (Shiloh, Koren, & Zakay, 2001). In addition to individual differences, different cultural values, social facilities and attitudes may also influence decision making and problem-solving behaviors (Yi & Park, 2003). However, some basic requirements are taken into consideration, decision-making activities are universal processes and the strategies used may vary (Mann et al., 1998).

Kneeland (2001) states that in order to make a useful or effective decision, timing and decision making processes must be implemented correctly. Adair (2000) emphasizes that the purpose should be determined first during the decision making process. Inclination to one of the several choices is a cognitive and complex process for individuals. In order to make an effective and healthy decision, this cognitive process should be carried out. Choices should be evaluated effectively before making a decision (Eldeleklioğlu, 1996; Kuzgun, 2000; Yeşilyaprak, 2003).

Individuals and social settings are reciprocally interacting systems. Socio-cultural environments contribute to the development of personality structures. Individual differences in working models and attachment relationships influence personality development and psychosocial adjustment by virtue of their influences on expectations about the self and about the self in relation to others (Cervone, Shadel, & Jencius, 2001; Waters, Vaughn, Posada, & Kondo- Ikemura, 1995). Personality structure has been concerned in the researches of personality. Several views about personality have been expressed. However, there was not a certain compliance about this issue, researchers have found consistent results with factor analysis studies. Researchers have also found evidences which addressed five dimensions of personality by means of using different personality data (Costa, McCrae & Dye, 1991; Digman, 1990; Goldberg, 1990; McCrae & Costa, 1987; McCrae & John, 1992). The five-factor personality trait seems to integrate different

views under an umbrella of terminology (Bacanlı, İlhan, & Aslan, 2009; Burger, 2006). Burger (2006) defines personality as consistent behavior patterns of the person and intra-personal processes. What is implied by consistent behavioral pattern is, performing the same acts in any time for any situation, while intra-personal processes mean all the emotional, cognitive and motivational processes developing inside us that have an influence over our acts and feelings.

Dimensions, composing the five-factor model; neuroticism, extraversion, openness to experience, agreeableness and conscientiousness confirmed by many cross-cultural studies (Bacanlı et al., 2009), can be defined as an organization of dynamic systems which assess an individual's authentic behavior and thinking style (Ekşi & Otrar, 2001).

Each of the five factors is said to give rise to an average, overall dispositional tendency in the individual's thoughts, feelings and actions (Cervone et al., 2001). *Neuroticism* is defined as the propensity to experience a variety of negative effects, such as anxiety, embarrassment, personal insecurity, irritability, fear and depression. Individuals, who experience unpleasant and disturbing emotions and emotional instability, score high on neuroticism. Individuals who have high level of neuroticism are more likely to experience stress in daily life than those who have low level of neuroticism. *Extraverted* individuals are social, lively, cheerful, enthusiastic, optimistic and energetic. Also facets such as sociability, being friendly, fun-loving, leadership, power and willingness represent this factor. *Openness to experiences* refers to willingness to be receptive to new ideas and approaches, a powerful imagination, intellectual curiosity and multi-dimensional thinking. *Agreeableness* is defined as the tendency to be helpful, modest, forgiving, easy going and merciful. Individuals high on agreeableness factor concern for and love others and they are social and also they may establish emotional closeness with other people. *Conscientiousness* is defined as the tendency to be responsible, ambitious, careful, disciplined and regular (Bacanlı et al., 2009; Burger, 2006; McCrae & John, 1992; Shaver & Brennan, 1992; Somer, Korkmaz, & Tatar, 2002).

The attachment style of an individual has a great importance on the development of personality. There are several evidences showing that the attachment styles are shaped by the first relationships the child establishes with his or her environment, also they continue during the adolescence and have an influence on individual's personality develop-

ment and interpersonal relationships (Ainsworth, 1989; Hamilton, 2000; Sroufe, 1979). Therefore, the development of secure adult relationships is related to the quality of the bond between mother and child (Ceyhan, 2006). In the light of these explanations attachment styles shaped by early childhood experiences, can provide important contributions to understanding individuals' decision self-esteem, decision making styles and personality traits.

The basic goal of this study is to determine the relationships between attachment styles and decision self-esteem, decision making styles and personality traits, and to understand whether the attachment styles explain decision self-esteem, decision making styles and personality traits or not. Since there aren't enough studies targeted to determine the relationship among attachment, decision self-esteem, decision making styles, explaining this relationship is very important in terms of contribution to the literature.

Method

Participants

The sample set of the research was composed of the students studying at Faculty of Technical Education (n=103, %18.2), Faculty of Education (n=125, %22), Faculty of Economy (n=78, %13.8), Faculty of Vocational Education (n=92, %16.2), and Faculty of Engineering and Architecture (n=133, %23.5) and were chosen by random set sampling method. The participants were 567 University students in total, 313 of whom were female and the mean age of the students were 21.07 (Ss:2.13). The age range of the participants was between 17 to 28. 26.01% (n= 148) of the students were freshman, 29.5 (n=167) of the students were sophomore, 17.8% (n=101) of the students were on the third year and 26.6% (n=151) were on the fourth year of their departments.

Instruments

Adjective Based Personality Scale: Adjective Based Personality Scale (ABPT) was developed by Bacanlı et. al. (2009). ABPT is composed of five sub-dimensions (extraversion, emotional stability/neuroticism, agreeableness, conscientiousness). Principle Component Analysis has been applied on the data collected from 285 participants in order to determine the construct validity of ABPT. Analyses have showed that five-factor model explains 52.63% of the variance in ABPT. Sociotropy Scale,

Table 1.*The Relationships among Attachment Styles, Decision Self-Esteem and Decision Making Styles*

	Decision Self-Esteem	Vigilance	Buck-passing	Procrastination	Hypervigilance
Fearful	-.11'	.07	.19***	.17***	.29***
Dismissive	.02	.10*	.06	.09*	.14**
Secure	.21***	.09*	-.20***	-.19***	-.20***
Preoccupied	-.20***	-.09*	.17***	.14**	.16***

* $p < .05$ * $p < .01$ *** $p < .001$

Reaction to Conflicts Scale, Negative-Positive Emotion Scale, and Trait Anxiety Inventory has been used to determine the concurrent validity of ABPT. Test-retest was conducted within a two weeks time and the Cronbach Alpha internal consistency coefficients were calculated. Internal consistency coefficients of the dimensions of ABPT varied between .89 to .73. As a result of test-retest analysis, Agreeableness was found to have the highest relationship ($r=.86$, $p<.01$) and Openness to Experiences was found to have the lowest relationship ($r=.68$, $p<.01$).

Melbourne Decision-Making Questionnaire I-II (DMQ I-II): The Melbourne Decision-Making Questionnaire was developed by Mann, Burnett, Radford, and Ford (1997) based on Flinder's Decision-Making Scale I-II. Mann et al. (1998) used the DMQ in cross-cultural research that included six countries with the aim of comparing decision self-esteem and the decision-making styles of university students. The DMQ-I is a scale that aims to determine decision self-esteem level.

It consists of 6 items. Grading is done by giving numerical values to items according to the answers below: true for me: score 2, sometimes true: score 1, not true for me: score 0. Higher scores are the indicators of a higher level of decision self-esteem. In this cross-cultural research, Cronbach alpha coefficient of the scale was found to be .74. The DMQ-II consists of 22 items and measures decision-making styles. The scale has 4 sub-scales, that are vigilance (6 items), buck-passing (6 items), procrastination (5 items) and hypervigilance (5 items) decision-making styles. This scale used the same answer style and was graded in the same way as the DMQ-I. Reliability coefficients of the sub-scales were calculated as follows: vigilance .80, buckpassing .87, procrastination .81 and hypervigilance .74 (Mann et al., 1998).

The adaptations of the DMQ-I and DMQ-II to Turkish were performed by Deniz (2004). The re-

liability coefficients obtained from sub-scales calculated by the test-retest method varied between $r=.68$ and $r=.87$. Cronbach alpha coefficients of the DMQ I and DMQ-II varied between $\alpha=.65$ and $\alpha=.80$. Scale validity similar to those of the DMQ-I and DMQ-II, was performed with the Decision Strategy Scale (DSQ) of Kuzgun (1992). Significant relationships between $r=.15$ and $r=.71$ were found between correlation coefficients of the DMQ I-II and DSQ (Deniz, 2004).

Relationships Scales Questionnaire (RSQ): The RSQ developed by Griffin and Bartholomew (1994) and adapted to Turkish participants by Sümer and Güngör (1999a) was used to determine the attachment styles of students. This inventory is a 17-item, Likert-type scale to measure four different attachment styles (secure, dismissing, fearful, and preoccupied). The reliability coefficients of the scale were calculated by the Retest Method and varied between .54 and .78. The parallel form validity of this scale was tested with the Relationship Questionnaire (Bartholomew & Horowitz, 1991) and the correlation coefficients varied between .49 and .61.

Procedures

The exact time for data collection of the research had been announced before. The measures were applied to the students who voluntarily participated into the study and they were collected in the classroom environment. Before collecting the data, the students had been informed about the measures. The process of data collection was done in one session which took approximately forty minutes.

Pearson correlation coefficient was applied to determine the relationship among decision self-esteem, decision making styles and personality traits. Multiple regression analysis was employed to determine if attachment styles predict decision self-esteem, decision making styles and personality traits.

Results

Results related with the study are given below:

The relationships among attachment styles, decision self-esteem and decision making styles were given in Table 1. The results of the regression analysis determining if attachment styles predict decision self-esteem and decision making styles were given in Table 2.

Results given in Table 2 show that fearful, dismissing, secure, and preoccupied attachment styles significantly predict decision self esteem ($R^2=.085$, $F=12.973$, $p<.001$). The attachment styles explain 8.5% of the decision self-esteem variance. The results of the t test related with the significance of the regression coefficients show that the most significant predictor was the secure attachment style. Another finding of the study was that the attachment styles of the students significantly predict all of the decision making styles including vigilance decision making style($R^2=.034$, $F=4.871$, $p<.01$), buck-passing style ($R^2=.083$, $F=12.728$, $p<.001$), Procrastination style ($R^2=.069$, $F=10.339$, $p<.001$) and hypervigilance style ($R^2=.119$, $F=19.047$, $p<.001$). Attachment styles (fearful, dismissing, secure, and preoccupied) explain 3.4% of vigilance decision making total variance, 8.3% of buck-passing decision making total variance, 6.9% of procrastination

decision making total variance and 11.9% of hypervigilance decision making total variance.

The relationships between attachment styles and sub-dimensions of personality traits were given in Table 3. Results of the regression analysis performed to determine if attachment styles significantly predict personality traits were given in Table 4.

As shown in Table 4, attachment styles significantly predict neuroticism ($R^2=.036$, $F=5.322$, $p<.001$), extraversion ($R^2=.049$, $F=7.240$, $p<.001$), openness to experiences ($R^2=.069$, $F=10.467$, $p<.001$), agreeableness ($R^2=.048$, $F=7.155$, $p<.001$) and conscientiousness ($R^2=.036$, $F=5.243$, $p<.001$) sub-dimensions of personality traits. Attachment styles (fearful, dismissing, secure, and preoccupied) explain 3.6% of neuroticism total variance, 4.9% of extraversion total variance, 6.9% of openness to experiences total variance, 4.8% of agreeableness total variance and 3.6% of conscientiousness total variance.

Discussion

The findings of the research show that there are significant relationships among attachment styles, decision self-esteem and decision making styles. Moreover, all of the attachment styles significantly predict decision self-esteem and decision making styles scores. Secure attachment style was

Table 2.
Results of Predictive and Explanatory Level of Attachment Styles on Decision Self-Esteem and Decision Making Styles

Dependent Variables	R ²	F	Independent Variables	t
Decision Self-Esteem	.085	12.973***	Fearful	-.264
			Dismissing	-.056
			Secure	4.900***
			Preoccupied	-4.614***
Vigilance	.034	4.871**	Fearful	2.378*
			Dismissing	.990
			Secure	2.821*
			Preoccupied	-2.410*
Buck-passing	.083	12.728***	Fearful	1.896
			Dismissing	1.131
			Secure	-3.980***
			Preoccupied	3.976***
Procrastination	.069	10.339***	Fearful	1.401
			Dismissing	1.823
			Secure	-3.815***
			Preoccupied	3.304*
Hypervigilance	.119	19.047***	Fearful	4.182***
			Dismissing	2.146*
			Secure	-3.211**
			Preoccupied	3.505***

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 3.
The Relationships between Attachment Styles and Personality Sub-Dimensions

	Neuroticism	Extraversion	Openness to Experience	Agreeableness	Conscientiousness
Fearful	.07	-.08*	-.04	-.07	.03
Dismissing	.04	.02	.09*	-.09*	.01
Secure	-.17***	.22***	.24***	.19***	.09*
Preoccupied	.07	-.04	-.06	-.05	-.14**

* $p < .05$ ** $p < .01$ *** $p < .001$

found to be the most significant predictor of vigilance, buck-passing and procrastination decision making styles and decision self-esteem. However, fearful attachment style was found to be the most significant predictor of hypervigilance decision making style.

Researches investigating the attachment relationships indicate that young people, who had secure attachment relationships with their parents in the adolescence period, feel more socially competent and have high levels of self-esteem (Sümer & Güngör, 1999b). However, adolescents with insecure attachment styles have low levels of self-esteem and experience emotions, such as having difficulty to establish close relationships, intensively (Cooper et al., 1998). These findings are supporting the findings of the current research.

Wells and Hansen (2003) stated in their research that individuals with secure attachment styles have low levels of shyness whereas individuals who have fearful and buck-passing attachment styles have significantly higher levels of shyness. Therefore in the light of this finding, individuals who have fearful and buck-passing attachment styles may use vigilance and procrastination decision making styles because they experience shyness intensively.

Brown and Mann (1990) investigated the relationships among family structures, process variables and adolescent decision making. Findings confirmed that positive family environment is influential on adolescents in making careful decisions. These adolescents have positive contributions to their environments and can make age-appropriate choices. Eldeleklioğlu (1996) investigated the relationship between parental attitudes and decision making strategies. There was a positive correlation between democratic parental attitudes and reasonable and independent decision making styles and also a negative correlation with instability. In addition to this, there was also a negative correlation between protective parental attitudes and reasonable decision making. Keeping in mind that individuals who grew up in a positive family environments

have secure attachment styles, the relationships between attachment styles and decision-making styles obtained as a result of the current study are also supported by the above research findings. On the other hand, the results of the related literature review showed that there weren't many studies on this subject. Similar studies with different sample groups will provide an important contribution to the field. Another finding of this research showed that, there were significant relationships between secure attachment style and personality traits. In short, attachment styles predict the personality traits. Fearful attachment style was negatively correlated with extraversion; dismissing attachment style was positively correlated with openness to experiences and negatively correlated with agreeableness; secure attachment style was negatively correlated with neuroticism, positively correlated with extroversion, openness to experiences, agreeableness and conscientiousness; preoccupied attachment style was negatively correlated with conscientiousness. According to Bowlby (1982), adult anxiety which stems from childhood experiences and attachment styles have a great importance to understand the anxiety. Attachment styles can be the basis and starting point of the underlying cognitive, emotional and stimulation processes of depression and anxiety (Simonelli, Ray, & Pincus, 2004).

Based on the literature review on attachment, it was understood that insecure attachment styles are carrying a risk factor for pathological symptoms (Brumariu & Kerns, 2008). In addition to this, the results of the studies which indicated that individuals with insecure attachment styles have higher levels of anxiety and depressive symptoms than the individuals with secure attachment styles (Bifulco, Moran, Ball & Bernazzani, 2002; Cassidy, Lichtenstein-Phelps, Sibrava, Thomas, Borkovec, 2009; Ceyhan, 2006; Hamarta, 2004; Muris, Meesters, Van Melick & Zwambag, 2001; Warren, Huston, Egeland & Sroufe, 1997; Weems, Berman, Silverman & Rodriguez, 2002), support the results of current research.

Shaver and Brennan (1992) obtained significant results from their study on university students about the influence of attachment styles on the individual's personality. As a result, they found that secure subjects were less neurotic and more extraverted than insecure subjects and they were also more agreeable than avoidant subjects. Persons scoring high on avoidance were less open to feelings and avoidance was also associated with shorter relationships, depression, lower levels of satisfaction and commitment. People with fearful attachment styles have difficulty in maintaining a relationship. Demirkan (2006) has determined significant relationships between attachment styles and five-personality traits. The results of this study are compatible with the current research.

Griffin and Bartholomew (1994) stated that neuroticism and extraversion sub-dimension of big five personality traits was related with attachment styles. There was a negative correlation between neuroticism and self-esteem, extraversion sub-dimension was defined as being social, optimistic, cheerful, enterprising and enthusiastic and these traits also related to secure individuals' traits. The results of the studies which indicate that there is a positive correlation between the secure attachment style and social skills level (Anders & Tuckers,

2000; Deniz, Hamarta, & Ari, 2005; DiTommaso, Brannen-McNulty, Ross, & Burgess, 2003) also support the assumptions that there is a relationship between attachment and extraversion. Other researches also indicated that individuals with internal locus of control, have secure attachment styles; while individuals with external locus of control have insecure attachment styles (Dilmaç, Hamarta, & Arslan, 2009; Hexel, 2003; McMahon, 2007). Individuals' irrational beliefs such as giving excessive importance to approval of other people and developing a dependent personality (sociotropy) or lack of self confidence are effective on the formation of personality disorders (Durmuşoğlu, Hamarta, Deniz, & Öztürk, 2006). These kinds of beliefs may be related with insecure attachment styles developed in early childhood experiences.

Consequently, results show that attachment styles are effective on decision self-esteem, decision making styles and personality traits. In the light of these explanations, individuals' early childhood experiences may have a significant effect on their capacity to develop secure attachment styles and to make reasonable decisions in their future lives. Individuals satisfied with their decisions may feel better in all aspects of their social lives and will also be satisfied with life itself.

Table 4.
Results of Predictive and Explanatory Level of Attachment Styles on Personality Traits

Dependent Variables	R ²	F	Independent	
			Variables	t
Emotional Instability/Neuroticism	.036	5.322***	Fearful	-.472
			Dismissing	1.309
			Secure	-3.997***
			Preoccupied	1.907
Extraversion	.049	7.240***	Fearful	-.441
			Dismissing	.632
			Secure	4.832***
			Preoccupied	-.777
Openness to Experiences	.069	10.467***	Fearful	.295
			Dismissing	1.936
			Secure	5.775***
			Preoccupied	-.978
Agreeableness	.048	7.155***	Fearful	1.014
			Dismissing	-2.391*
			Secure	4.602***
			Preoccupied	-.1909
Conscientiousness	.036	5.243***	Fearful	2.313*
			Dismissing	-.1092
			Secure	2.818*
			Preoccupied	-3.779***

*p < .05 **p < .001

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